

COMMERCIAL BUILDING CONSISTENCY

February 6, 2018



AGENDA

- ▶ Commercial Consistency Meeting Dates
 - ▶ Commercial Consistency Items
 - ▶ Training Session – **Sprinkler Systems**,
Greg Riffe, P.E. - GAR Engineering
- 

FY 2018 BUILDING CONSISTENCY MEETINGS

Commercial

- Feb 6
- Mar 6
- Apr 3
- May 1
- Jun 5

Residential


- Feb 7
 - Mar 7
 - Apr 4
 - May 2
 - Jun 6
- 

COMMERCIAL CONSISTENCY

February 6, 2018



OPEN ITEMS

- ▶ Re-visit Energy Code Changes for F,S or U
 - ▶ Resolution on Generator not outside bldg.
 - ▶ Contacts for help with plans or inspections
- 

Q: WHAT ARE THE CURRENT ENERGY CODE REQUIREMENTS FOR STORAGE BUILDINGS?

A: Currently, there are 5 ways to meet NC Energy Code requirements:

- Prescriptive NCECC
- ComCheck based on NCECC
- Prescriptive ASHRAE 90.1
- ComCheck based on ASHRAE 90.1
- Total Building Performance (Section 507 – Energy Cost Analysis)

FJE Upfit
11515 Granite St.
Suite D
Charlotte, NC 28273



Prepared by:



Q: WHAT CHANGES ARE BEING PROPOSED TO THE NC ENERGY CODE REGARDING STORAGE BUILDINGS?

A: The BCC held a public hearing in Sep on a proposed amendment which would exempt any structure for which the primary occupancy is F, S or U. This would apply to the entire building area. The BCC voted on this item at their Dec meeting. It should go to Rules Review on Feb 15th.

What went to Public Hearing on Sep 12, 2017:

Item C – 8 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Energy Code, Section C101.2 as follows:

C101.2 Scope.

This code applies to *commercial buildings* and the buildings' sites and associated systems and equipment.

Exceptions:

1. Energy expended in support of *process energy* applications does not invoke energy conservation code requirements or building thermal envelope requirements unless otherwise required in specific sections of this code.
2. Per G.S. 1430138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U pursuant to Chapter 3 of the 2018 North Carolina Building Code. This exclusion shall apply to the entire building area.

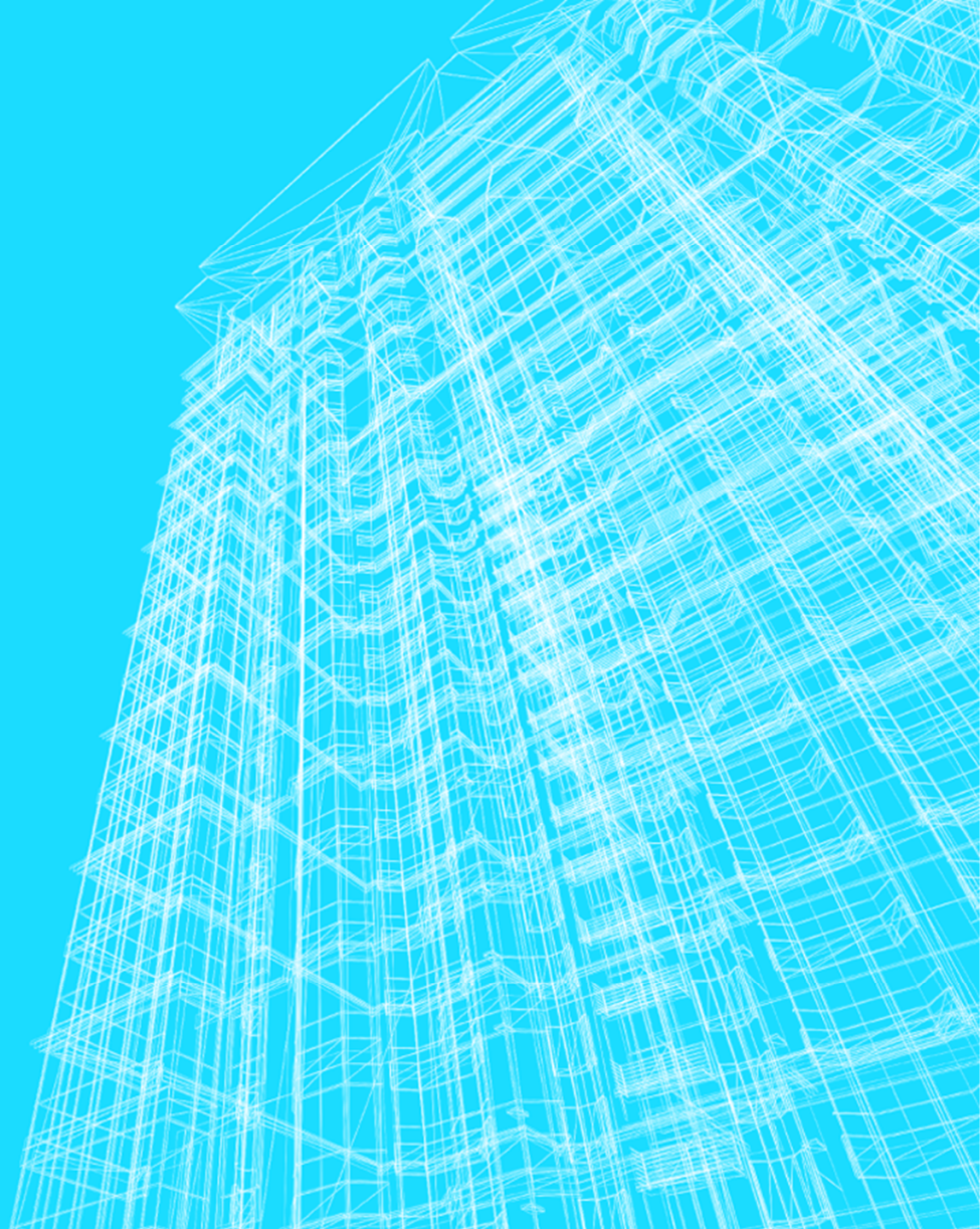
Question: How is “primary occupancy” determined?



CODE AMENDMENT PROCESS

ENERGY CODE CHANGES

SB 131 and GS 143-138 (b18)
February 1, 2018





BACKGROUND – NEXT STEPS

- Senate Bill 131
- General Statute 143-138 (b18)
- Building Code Council changes and status
- Customer outreach
- Strategy for initial burst of projects



EXCERPT FROM SB131

EXEMPT CERTAIN BUILDING CODE CLASSIFICATIONS FROM ENERGY EFFICIENCY STANDARDS

SECTION 1.4. G.S. 143-138 is amended by adding a new subsection to read:

"(b18) Exclusion From Energy Efficiency Code Requirements for Certain Use and Occupancy Classifications. – The Council shall provide for an exemption from any requirements in the energy efficiency standards pursuant to Chapter 13 of the 2012 North Carolina Building Code and the 2012 Energy Conservation Code, and any subsequent amendments to the Building Code and Energy Conservation Code, for the following use and occupancy classifications pursuant to Chapter 3 of the 2012 North Carolina Building Code: Section 306, Factory Group F; Section 311, Storage Group S; and Section 312, Utility and Miscellaneous Group U. This exclusion shall apply to the entire floor area of any structure for which the primary use or occupancy is listed herein."



GS 143-138

- This statute gives the Building Code Council the ability to adopt and develop the code as it deems necessary.
- It also outlines the process for adoption.



GS 143-138

North Carolina

§ 143-138. North Carolina State Building Code.

(a) Preparation and Adoption. – The Building Code Council may prepare and adopt, in accordance with the provisions of this Article, a North Carolina State Building Code. Before the adoption of the Code, or any part of the Code, the Council shall hold at least one public hearing. A notice of the public hearing shall be published in the North Carolina Register at least 15 days before the date of the hearing. Notwithstanding G.S. 150B-2(8a)h., the North Carolina State Building Code as adopted by the Building Code Council is a rule within the meaning of G.S. 150B-2(8a) and shall be adopted in accordance with the procedural requirements of Article 2A of Chapter 150B of the General Statutes.

The Council shall request the Office of State Budget and Management to prepare a fiscal note for a proposed Code change that has a substantial economic impact, as defined in G.S. 150B-21.4(b1), or that increases the cost of residential housing by eighty dollars (\$80.00) or more per housing unit. The change can become effective only in accordance with G.S. 143-138(d). Neither the Department of Insurance nor the Council shall be required to expend any monies to pay for the preparation of any fiscal note under this section by any person outside of the Department or Council unless the Department or Council contracts with a third-party vendor to prepare the fiscal note.



GS 143-138

(b) Contents of the Code. – The North Carolina State Building Code, as adopted by the Building Code Council, may include reasonable and suitable classifications of buildings and structures, both as to use and occupancy; general building restrictions as to location, height, and floor areas; rules for the lighting and ventilation of buildings and structures; requirements concerning means of egress from buildings and structures; requirements concerning means of ingress in buildings and structures; rules governing construction and precautions to be taken during construction; rules as to permissible materials, loads, and stresses; rules governing chimneys, heating appliances, elevators, and other facilities connected with the buildings and structures; rules governing plumbing, heating, air conditioning for the purpose of comfort cooling by the lowering of temperature, and electrical systems; and such other reasonable rules pertaining to the construction of buildings and structures and the installation of particular facilities therein as may be found reasonably necessary for the protection of the occupants of the building or structure, its neighbors, and members of the public at large.



BUILDING CODE COUNCIL

- The BCC is working through the process to amend the code per the instruction of SB131, which was signed into law in May 2017.
- The bill specifically targets the 2012 code, the BCC extends it to the 2018 codes
- The changes will appear in
 - 2012 NC Building Code, Section 1301.1.1
 - 2012 NC Energy Code, Section 101.2
 - 2015 NC Existing Building Code, Section 101.12
 - 2018 NC Building Code, Section 1301.1.1
 - 2018 NC Existing Building Code, Section 101.12
 - 2018 NC Energy Code, Section C101.2



BUILDING CODE COUNCIL CHANGES

Item D – 3 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2012 NC Building Code, Section 1301.1.1 as follows:

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code*.

Exception: Per G.S. 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U. This exclusion shall apply to the entire building area.

Item D – 4 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2012 NC Energy Code, Section 101.2 as follows:

101.2 Scope. This code applies to *residential* and *commercial* buildings.

Exception: Per G.S. 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U pursuant to Chapter 3 of the 2012 North Carolina Building Code. This exclusion shall apply to the entire building area.



BUILDING CODE COUNCIL CHANGES

Item D – 8 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Energy Code, Section C101.2 as follows:

C101.2 Scope.

This code applies to *commercial buildings* and the buildings' sites and associated systems and equipment.

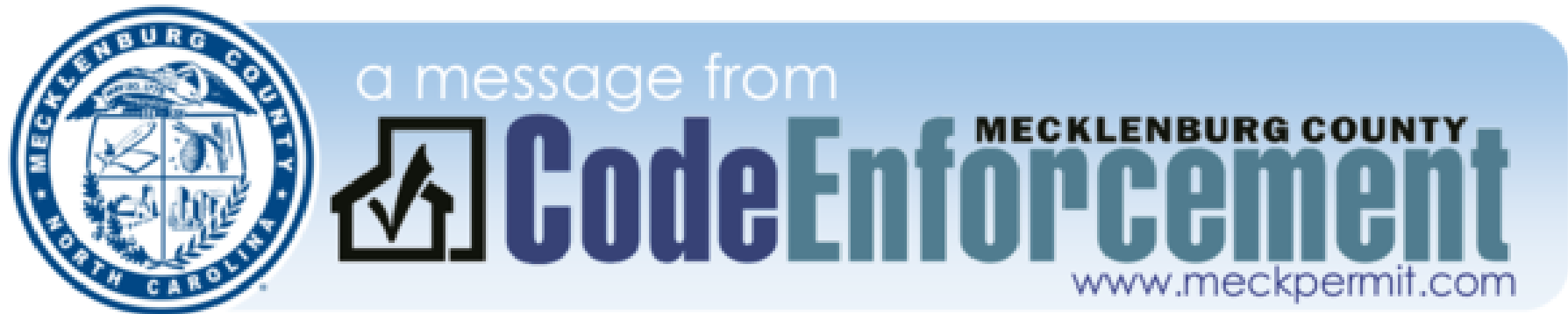
Exceptions:

1. Energy expended in support of *process energy* applications does not invoke energy conservation code requirements or building thermal envelope requirements unless otherwise required in specific sections of this code.
2. Per G.S. 1430138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U pursuant to Chapter 3 of the 2018 North Carolina Building Code. This exclusion shall apply to the entire building area.

OUTREACH TO CUSTOMERS

- 2 memos are scheduled to be sent, February 2 and February 6*
- February 2 memo:

* Note: Feb 6th memo was not issued since we were waiting to hear the final Rules Review Commission vote on Feb 15th.



Some of you have been curious about N.C. Session Law 2017-10, formerly known as SB131. There's a portion of this law that exempts buildings with primary occupancies of F (factory), S (storage) or U (utility/misc.) from certain energy efficiency standards.

We understand why our customers need to know what this law means for them and when it might take effect — we're awaiting the same information. We are hearing that things might be finalized soon — we will keep you updated as we learn more.

Thank you for being our valued customer.

COMPLIANCE – DESIGNERS PATH

- No compliance = will not be designed to meet thermal, electrical or mechanical requirements
- Partial compliance = will not be designed to meet all three areas (thermal, electrical, mechanical) but may include one or more. (e.g. lighting only)
- Full compliance = will be designed to meet all thermal, electrical and mechanical requirements

Note: any specific requirements in the E, M, or P code still apply, for example: metering faucets

No compliance	Partial compliance	Full compliance
Designer will provide statement on drawings at App B, Energy Statement Section, or letter on plans	Designer will provide statement on drawings at App B, Energy Statement Section, or letter on plans Details on plans will show what is being installed, it shall not violate any other component of the code and must be installed per the drawings	Designer will provide statement on drawings at App B, Energy Statement Section, or letter on plans Plans will reflect fully compliant energy requirements and will be reviewed and inspected for such.



SHORT TERM STRATEGY – PROJECTS UNDER CONSTRUCTION

- For projects currently under construction that wish to take advantage of the new code sections:
- They should speak with their inspector about reducing the energy components of their job.
- They should submit an RTAP to the office for review.
- Drawings should include the statement from the designer regarding energy and the level of compliance they will be meeting/providing
- Drawings should accurately reflect the scope of work that will be done in regards to energy. For example, removing the insulation from the walls, changing the equipment, etc.
- Plans examiners will review for all compliance and hold the review until the code change is passed. Once passed, approvals will be given and projects will move forward.



SHORT TERM STRATEGY – PROJECTS IN REVIEW

- For projects that are currently under review:
- Designers may communicate that they wish to change their design to the plans examiners.
- Plans examiners will communicate with fellow reviewers on a project if they know energy changes will be submitted.
- Plans examiners will review for all other code components, then disapprove for energy changes
- Designer will make changes for energy and submit the changes in the next cycle, providing statement of intent on energy and changed details/pages as necessary
- Plans examiners will review for all compliance and hold the review until the code change is passed. Once passed, approvals will be given and projects will move forward.



SHORT TERM STRATEGY – PROJECTS BEING DESIGNED

- For new projects being submitted:
- Estimator will ask the designer if this project will be exempting out of energy, if so, will assign to energy team (OnSchedule)
- Controllers will ask the designer if project will be exempting out of energy and if so ensure proper information is included in the drawings (CTAC)
- Plans examiners will review for all compliance and hold the review until the code change is passed. Once passed, approvals will be given and projects will move forward.
- If other items need to be corrected, plans will go through interactive or be disapproved as appropriate.



EFFECTIVE DATE

- If the effective date is immediate, we will approve projects accordingly
- If the effective date is in the future, we will allow the energy changes as an alternate materials and methods, with designers submitting the request to the appropriate Code Administrator(s)

2/15/2018 Note: The effective date for these code changes is March 1, 2018.

Q: WHEN IS A GENERATOR INSIDE A BUILDING VERSUS OUTSIDE?

A: When there is no open sky above it and it is under the projection of the building. This one is outside of the building it serves, but it is still inside a parking deck so it's not outside. (Arrow marks proposed location of the generator)



RESOLUTION ON GENERATOR NOT OUTSIDE THE BUILDING

Owner of the building space served by the generator will purchase more slab space so a two-hour rated enclosure can be built around it.



Q: Who can I contact for help with my project / plans?

A: In Plan Review –

- **Commercial Plan Review Team –**
TOM SMITH, Manager 980 314 3108
Michael Peterson, Sr. Plans Examiner (B) 980.314.3186
Errol Cooper Sr. Plans Examiner (E) 980.314.3178
- **Andy Scoggins, Sr. Plans Examiner (M)**
- **CTAC/RTAC –**
CHARLES WALKER, Manager 980.314.3107
Scott Westbrook, Sr. Plans Examiner 980.314.3114

Q: Who can I contact for help with my project / plans?

A: Plan Review & Inspections (Special Teams)

- **HCD Team –**

HOWARD GRINDSTAFF, Manager 980.314.3171

Clay Goodman, Sr. Plans Examiner 980.314.3174

- **Mega Team –**

ANDY HERRING, Manager 980.722.9259

David Rains, Sr. Code Official (E) 704.309.4510

Eric Moore, Sr. Code Official (B) 980.314.3357

Q: Who can I contact for help with my project / plans?

A: Inspections –

- **Residential Team –**

JEFF GRIFFIN, Manager 704.634.8847

Mike Kale, Sr. Inspector (E) 980.521.6757

Brandon Burgin, Sr. Inspector (B) 980.259.9200

Dave Barrett, Sr. Inspector (P&M) 980.722.0259

- **Commercial Team –**

STEVE PEARSON, Manager 980.314.3062

Bob Hartman, Sr. Inspector (E) 980.722.3618

Andy DeMaury, Sr. Inspector (M&P) 704.200.5595

Allen Croom, Sr. Inspector (B) 980 297 5839

NEW COMMERCIAL CONSISTENCY ITEMS

February 6, 2018

A series of several thin, parallel white lines that originate from the right edge of the slide and extend diagonally upwards and to the left, creating a sense of motion or a graphic element.

New Commercial Consistency Items

Q: Is an apartment offset wall next to a balcony required to provide symmetrical protection if there is a dwelling / sleeping unit on the other side?

Q: When a referenced standard or requirements from another agency conflict with code, which one prevails?

Q: Current trends use a lot of wood as finish material. How do we make sure it meets finish rating?

New Commercial Consistency Items

Q: How are we meeting both accessibility and pool barrier height requirements for door hardware?

Q: Do breezeways have an occupancy? Are they considered exterior walls? Can mailboxes be in the breezeway?

Q: Does a roof over a rooftop terrace create another story? If so, are sprinklers required for this A area?

Q: Does FireLite qualify as for protected openings?

Q: How do we calculate the Occupant load in a training room?

New Commercial Consistency Items

Q: Does the gyp need to be completed above a drop ceiling on an insulated exterior wall?

Q: Where can FSD be measured from?

Q: Can we use the 2018 code now?

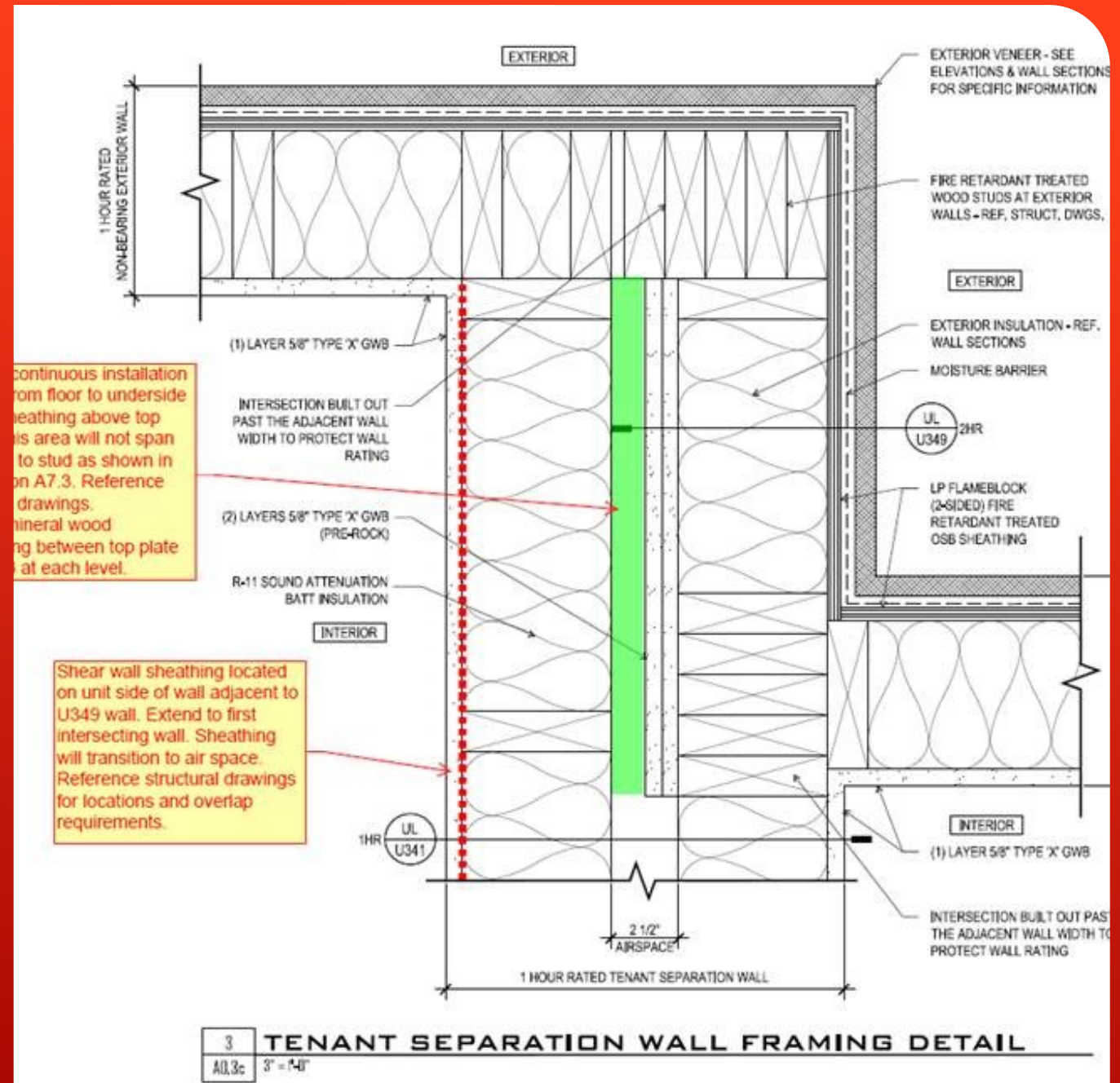
Q: Can FRT be used below the podium in a 509 bldg.?


Q: What's the deal with stackable washers & dryers in type B units?

Q: How can something be turned down in the field when the plans were approved?


Q: IS AN APARTMENT OFFSET WALL NEXT TO A BALCONY REQUIRED TO PROVIDE SYMMETRICAL PROTECTION SINCE THERE IS A DWELLING UNIT ON THE OTHER SIDE?

A: Yes, since the intent of dwelling unit separation is to protect the tenants of the dwelling unit from unknown dangers outside of their unit and, therefore, outside of their control. Also, a sleeping room must be afforded extra time for people to recognize the danger and egress. (UL U349)






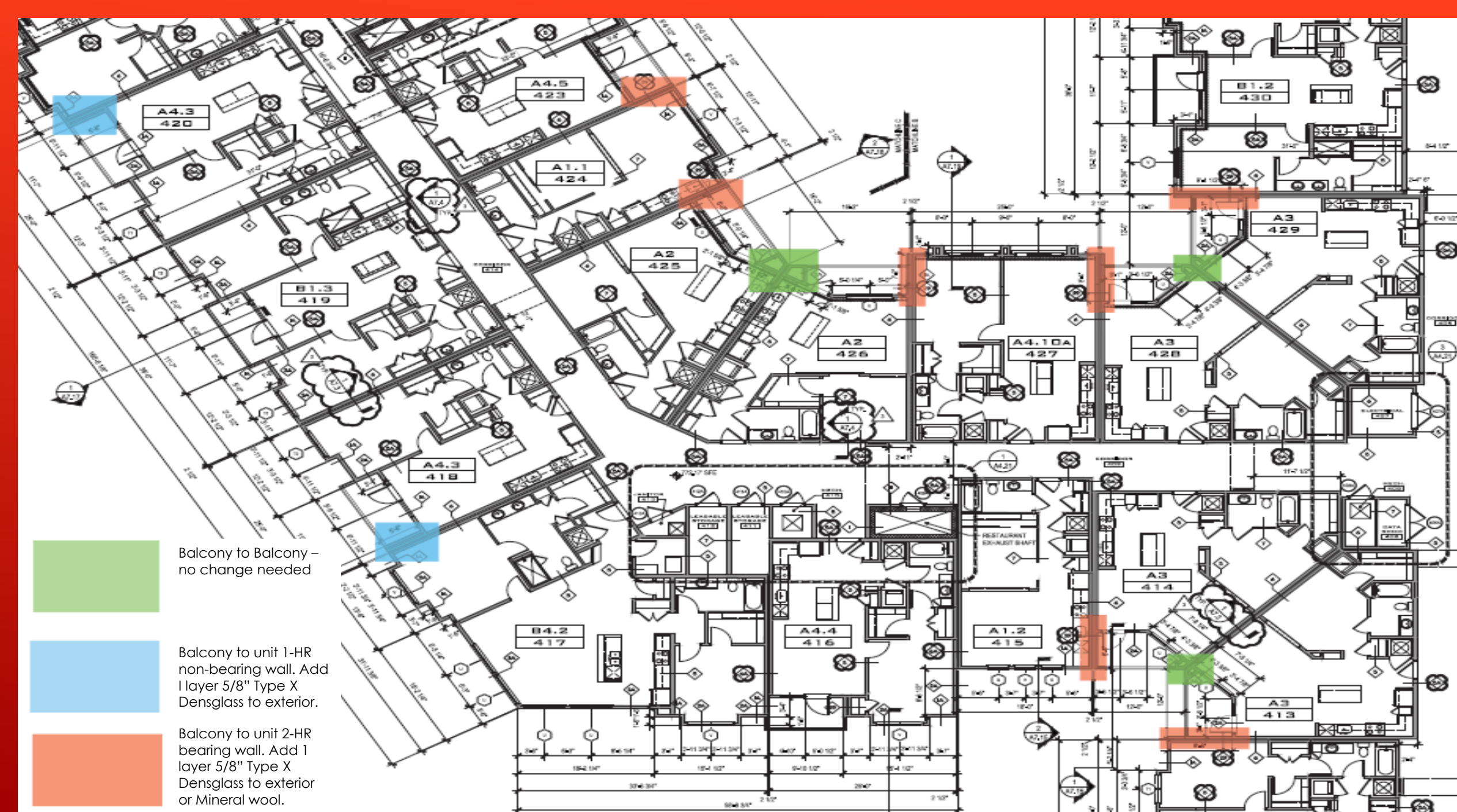
Balcony to Balcony –
no change needed



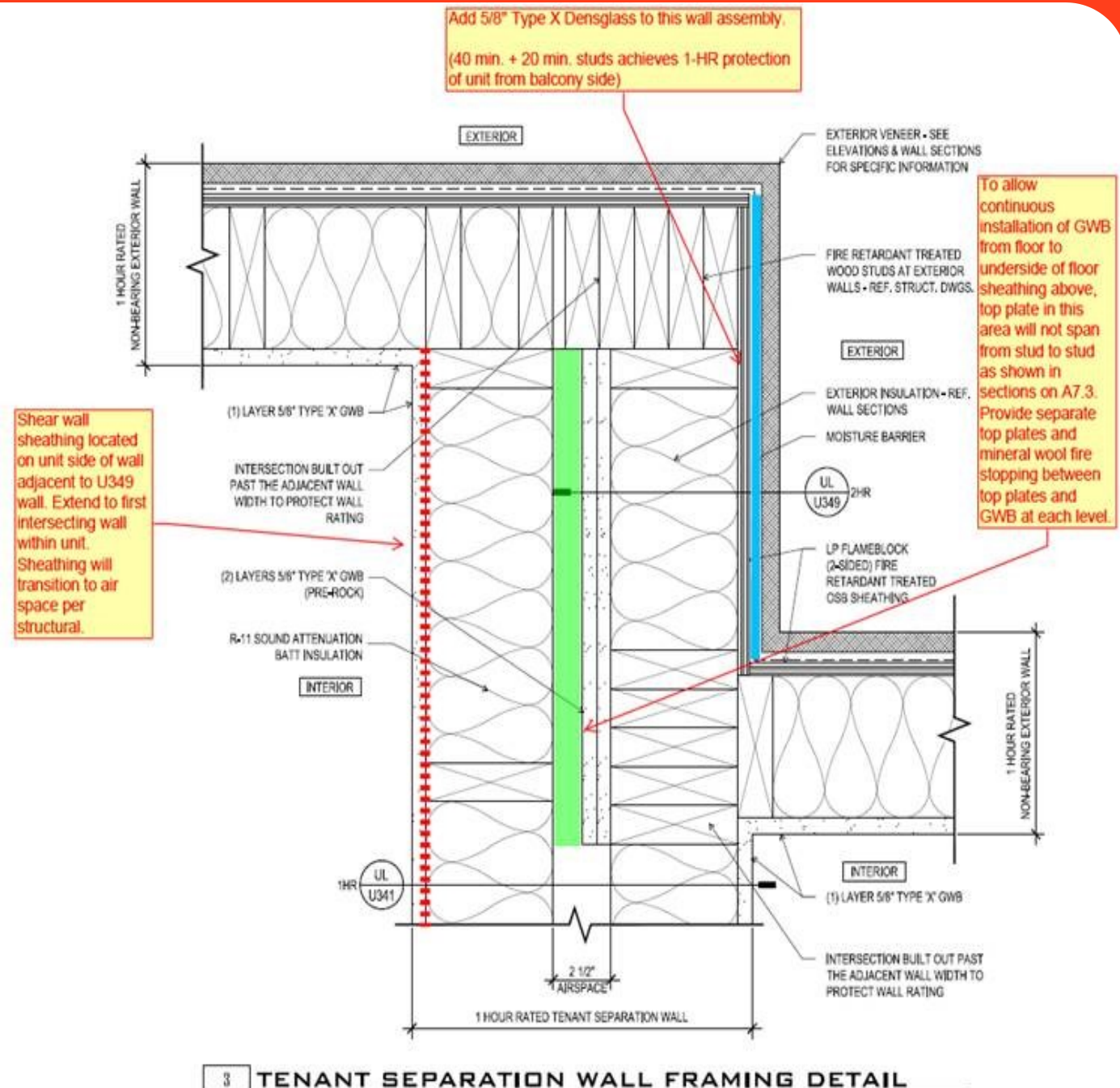
Balcony to unit 1-HR
non-bearing wall. Add
1 layer 5/8" Type X
Densglass to exterior.



Balcony to unit 2-HR
bearing wall. Add 1
layer 5/8" Type X
Densglass to exterior
or Mineral wool.



ONE OF THE PROPOSED SOLUTIONS – 5/8" DENSGLASS ON BALCONY SIDE TO GIVE A SYMMETRICAL RATING



Q: WHEN A REFERENCED RULE FROM ANOTHER AGENCY CONFLICTS WITH CODE, WHICH ONE PREVAILS?

A: According to the General Statutes, the Code prevails. (G.S. 143-138 (b7)) We use information from other agencies as a guide or for information only, but their requirements do not supersede the Code.

(b7) The Code may include references to such other rules of special types, such as those of the Medical Care Commission and the Department of Public Instruction as may be useful to persons using the Code. No rule issued by any agency other than the Building Code Council shall be construed as a part of the Code, nor supersede that Code, it being intended that they be presented with the Code for information only.

Example from Environmental Health for an expansion of a Kiddie Pool:

With the information provided below, unfortunately additional restroom fixtures will be required to accommodate the expanded size of the new children's activity pool. The breakdown I have is shown below:

Main pool bather load (203 people total):

3615sqft (**total large pool**) – 990 sq ft (dive well) = 2625sq ft. ← divided by 15sq ft per person

[.2529(1)]= bather load of 175ppl

990sq ft (**dive well**) – 300sq ft (for the diving board area per [.2529(2)]) = 690sq ft. ← divided by 24sq ft per person= bather load of 28ppl

Children's Activity Pool (93 people total):

936sq ft divided by 10sq ft per person [.2529(3)] = 93ppl.

Total bather load that restroom fixtures are calculated by per health regulations: **296ppl (148 men, 148 women)**.

Fixtures required per [.2526] for 101-200 men and 101-200 women:

Men: 2 toilets, 2 lavatories, 2 urinals, 2 showers (one total deck shower will suffice)

Women: 3 toilets, 3 lavatories, 1 shower (one total deck shower will suffice)

Q: CURRENT DESIGN TRENDS USE A LOT OF WOOD AS FINISH MATERIAL. HOW DO WE MAKE SURE IT MEETS FINISH RATING?

A: Flame Spread Rating and Smoke Developed Index must be documented for the particular species of wood. This applies to finish material only – no wood can be used structurally in a building of non-combustible construction, except as allowed in Code Section 603. If the wood does not meet the required classification rating, an alternate may be considered.



This email is in reference to the reclaimed barn wood used in Building 1800 - Amenity at Capital Whitehall. Our firm, Niles Bolton Associates, is the architect of record for this project. The reclaimed barn wood used as an interior finish material was supplied by a vendor from locations in the Ohio and Pennsylvania region which were built using indigenous materials. While we have not confirmed the precise species of wood from the supplier, based on visual inspection of the materials and source location, our professional opinion is that the species is Red Pine.

The 2012 North Carolina Building Code, Section 803.1.1 Interior wall and ceiling finish materials, requires that Class C finish materials have a smoke developed index rating between 0 and 450. According to the Western Wood Products Association, the smoke-developed index for Red Pine is 229.

Please let me know if you have additional questions.

Regards,
Hal Bolton, AIA, LEED BD+C, WELL AP
Senior Project Manager
404.365.7600 x 158 | hbolton@nilesbolton.com
www.nilesbolton.com

Eli, with the previous email from Mr. Bolton below attesting to the barnwood being Red Pine and with the attached document showing the flame spread and smoke-developed index, I believe your team has provided enough evidence to show this material meets the code requirements of a Class C finish rating. That being the case, the barnwood used for wall and ceiling finish can remain as is. Please be advised that this only covers the barnwood and does not relieve the requirements of any other code items including the lights and their wiring methods.

Jeff Vernon, MCP, CBO
Building Code Administrator
Mecklenburg County Code Enforcement
2145 Suttle Ave.
Charlotte, NC 28208-5237
980 314 3097

Table B

Other Wood Products	Flame-Spread Rating	Flame-Spread Class	Smoke-Developed Index	Source
Redwood	70	B	75-115	UL
Elm	76	C	-	HPVA
White Oak 3/4"	77	C	-	HPVA
Red Oak 3/4"	84	C	-	HPVA
Eastern White Pine	85	C	122	CWC
Redwood 3/8" Plywood	95	C	115	UL
SYP 3/8" Plywood	100-105	C	85	APA
Yellow Birch	105-110	C	-	UL
Birch Plywood 1/4"	127	C	-	HPVA
Walnut 3/4"	101	C	-	HPVA
Southern Yellow Pine	130-195	C	-	UL
Red Pine	142	C	229	CWC
Oak 1/4" Plywood	153	C	-	HPVA
Poplar	170-185	C	-	UL

Factory-Applied Finish

Particleboard	100-180	C	-	HPVA
MDF	121-167	C	-	HPVA
Hardboard	148-166	C	-	HPVA
Hardwood Plywood	99-191	C	-	CWC, APA
Softwood Plywood	110-140	C	-	APA
OSB	150-155	C	-	APA

Source for Other Wood Products and factory applied Finish flame-spread ratings is provided in AF&PA's Design for Code Acceptance, www.awc.org/dca/dca1t1.html.

Smoke-developed indices were not measured for all species and products.

Flame-Spread ratings and smoke-developed indices sources:

APA	APA-The Engineered Wood Association
CWC	Canadian Wood Council
CRA	California Redwood Association
HPVA	Hardwood Plywood & Veneer Association
UL	Underwriters' Laboratory, Inc.

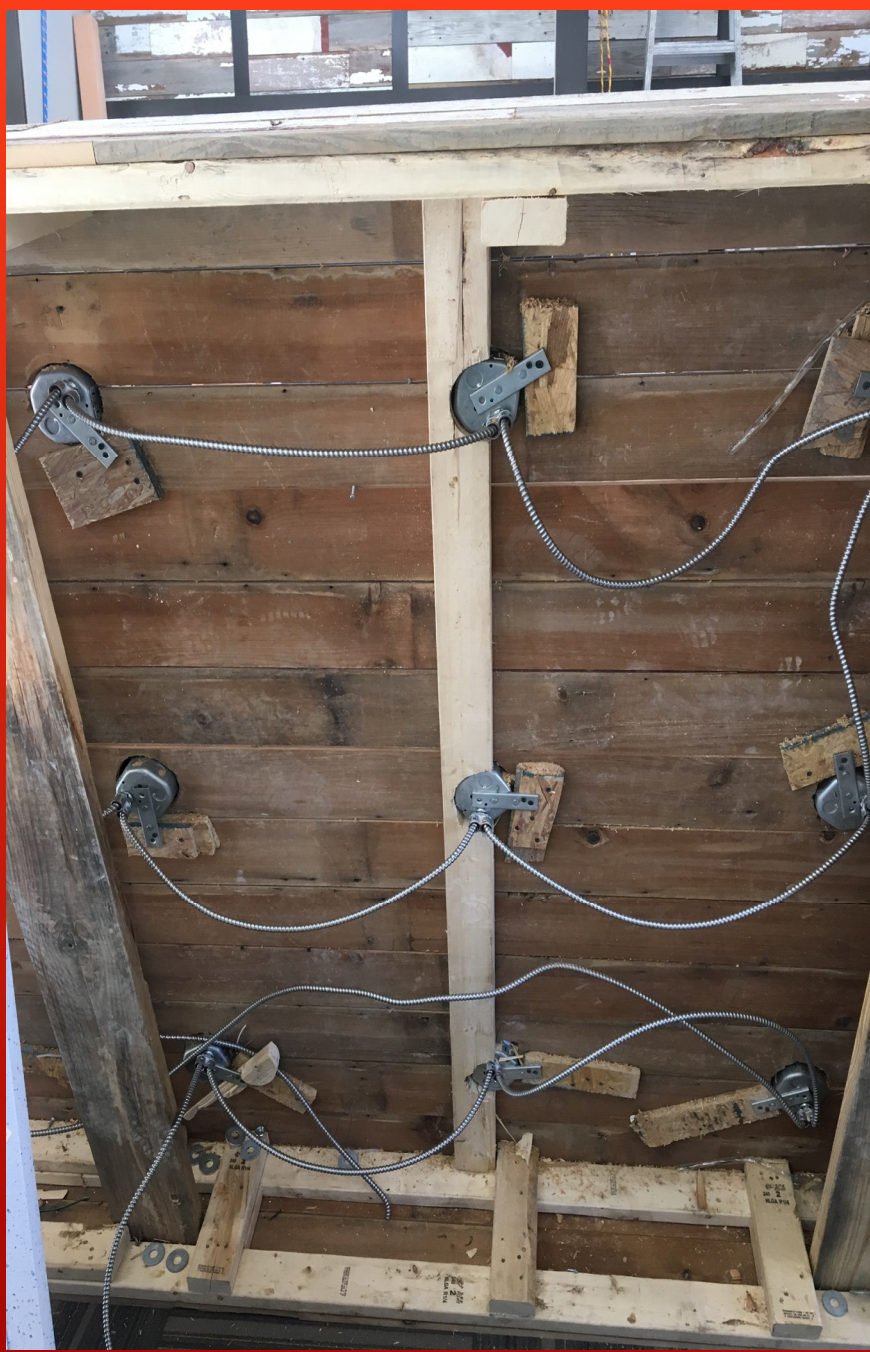
Flame-spread ratings for factory-applied finish products are based on range of indices for different product thicknesses.

Additional Information

Technical information on Western Lumber products manufactured by WWPA mills is available on the Internet in the Association's Online Technical Guide at www.wwpa.org/techguide. The Online Guide features sections on lumber grades, design values, specifications, special products and properties of Western lumber.

A list of WWPA producing mills is available on the web site in the Online Lumber Buyers Guide at: www.wwpa.org/members.asp. For a full description of technical publications available for purchase and a printable order form, go to the WWPA site at www.wwpa.org/publist.htm.

You can also receive an order form via fax through the WWPA Fax Delivery Service by calling 732-544-2876 and following the instructions.



Q: HOW ARE WE MEETING BOTH ACCESSIBILITY AND POOL BARRIER HEIGHT REQUIREMENTS FOR DOOR HARDWARE ON DOORS FROM THE CLUBHOUSE ONTO THE POOL DECK?

A: We are requiring them to set the door hardware at 54" to comply with the pool barrier requirements but also allowing them to put a card reader or similar mechanism at 48" max AFF for accessibility. This does not apply to egress doors that lead from the building through the pool area.

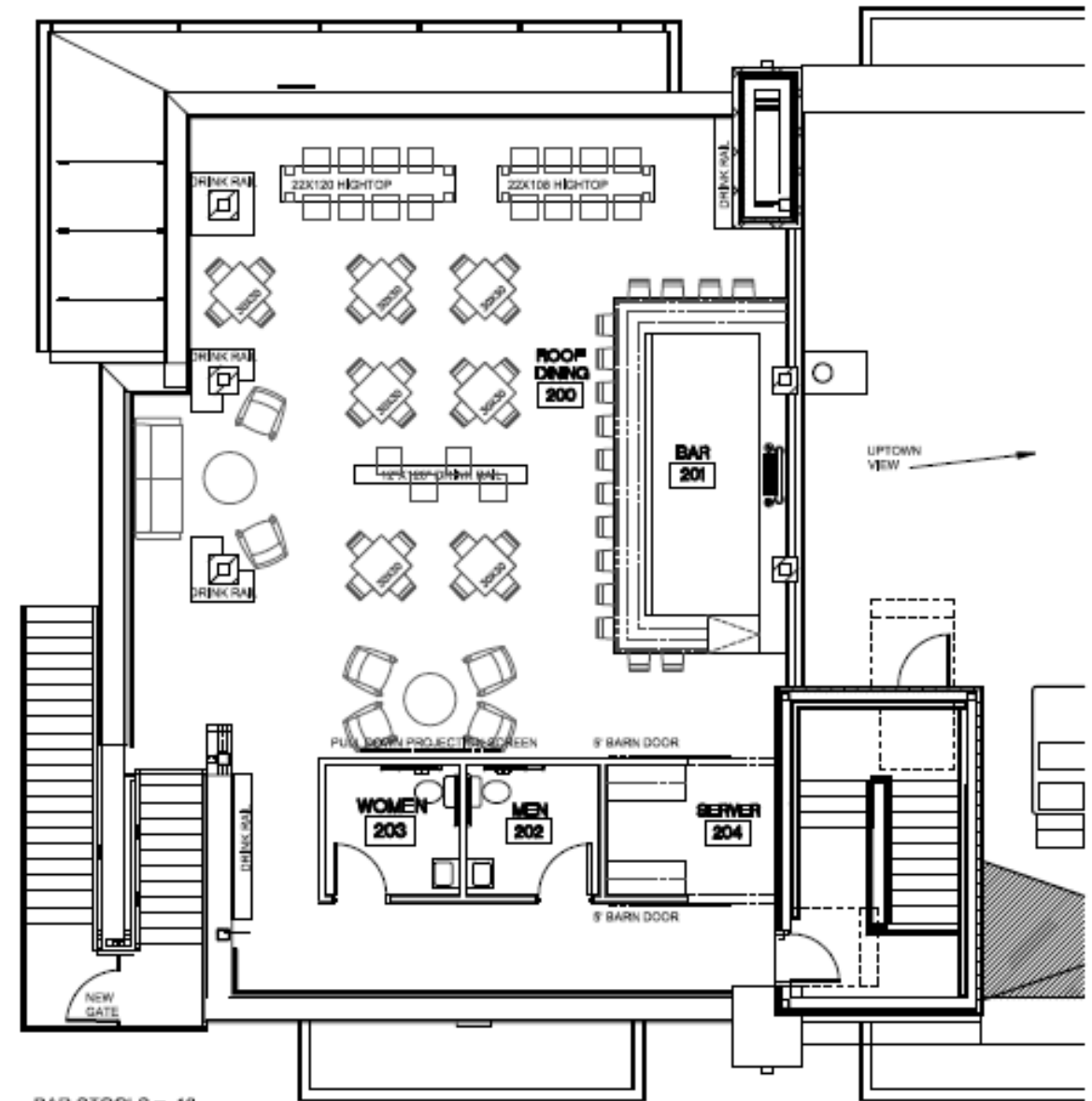
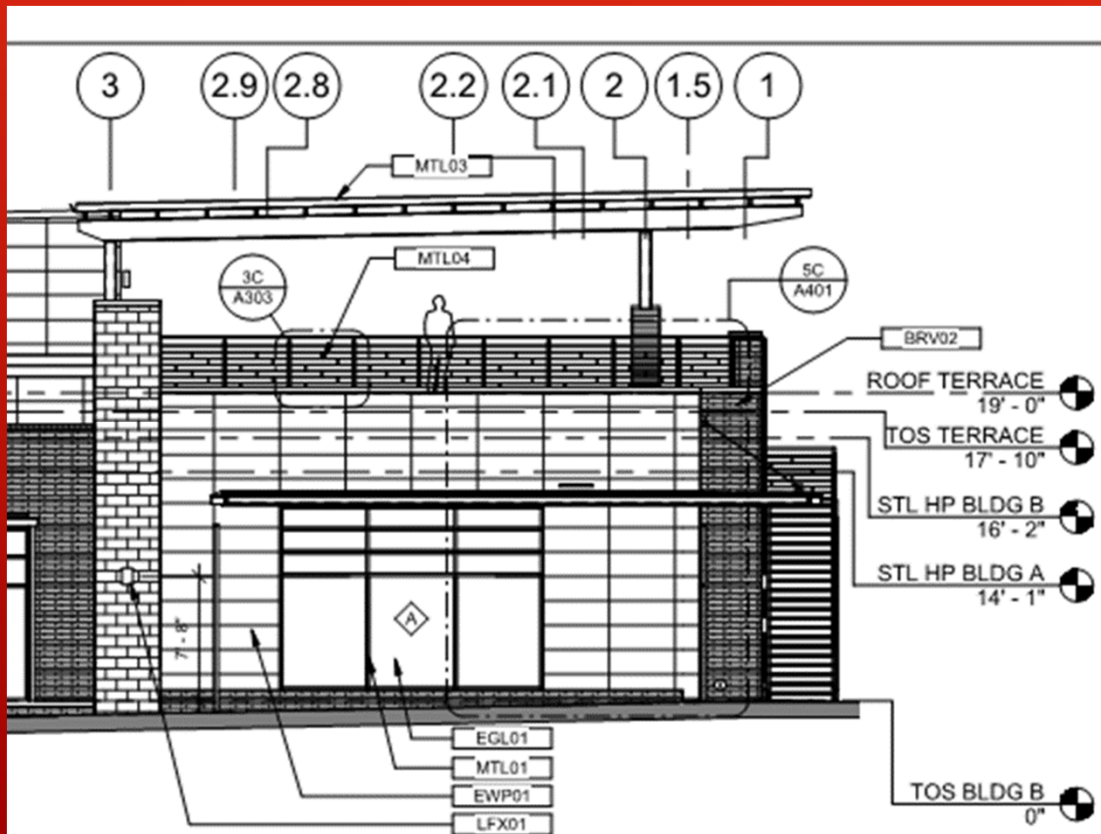


**Q: DO BREEZEWAYS
HAVE AN
OCCUPANCY? ARE
THEY CONSIDERED
EXTERIOR WALLS? CAN
MAILBOXES BE IN THE
BREEZEWAY?**

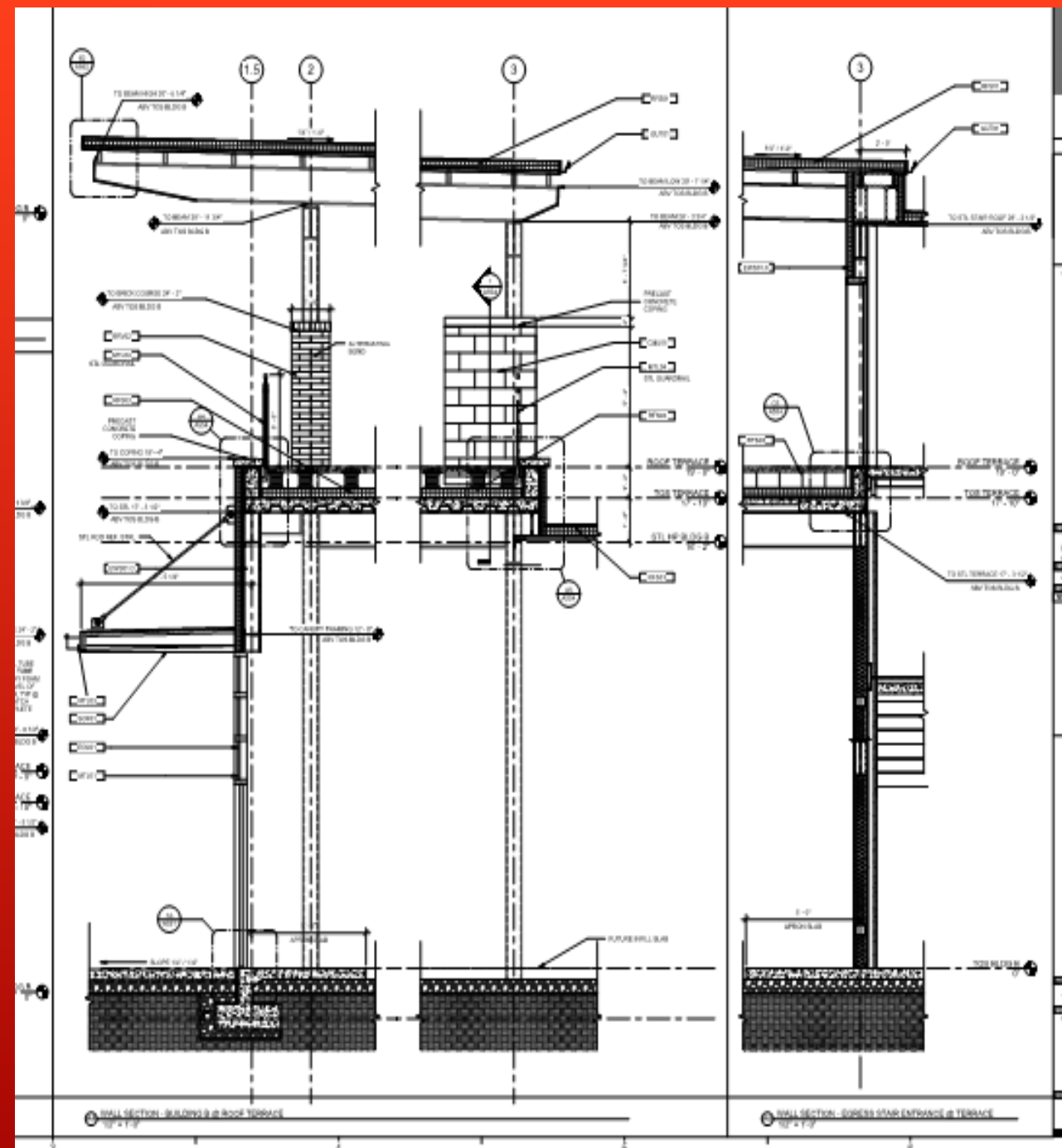
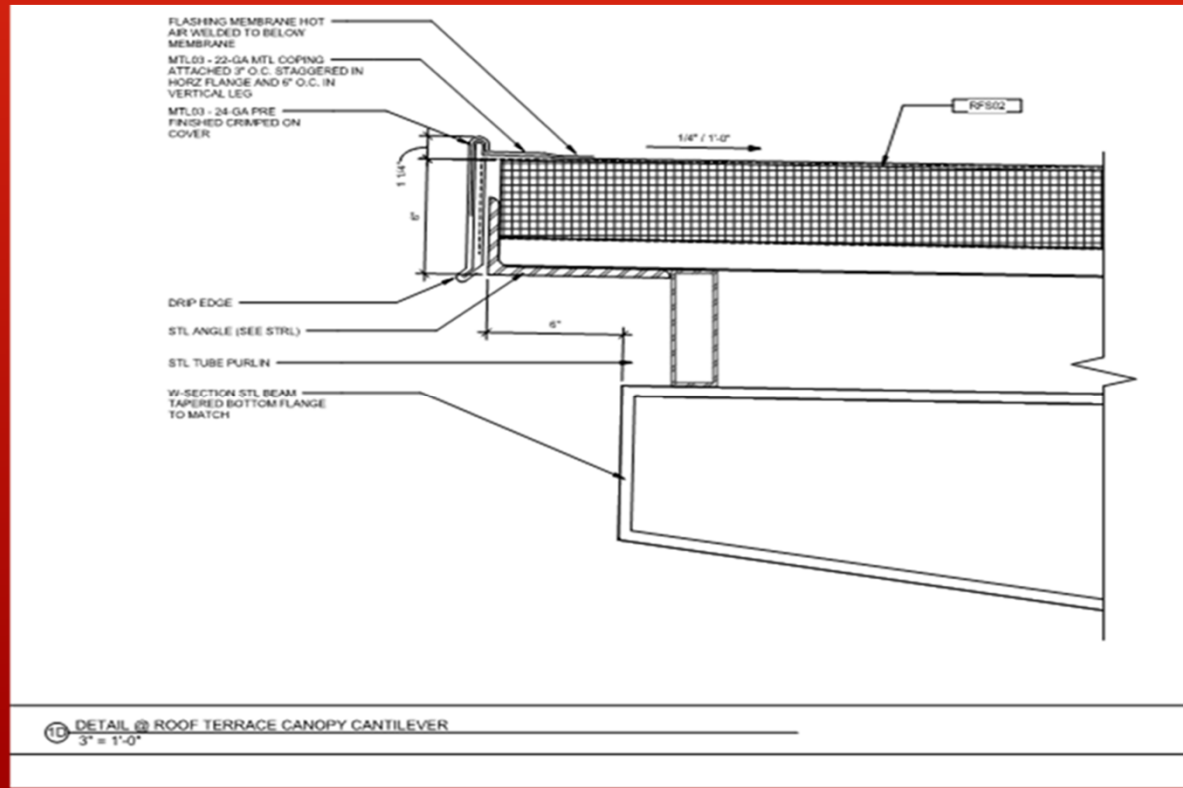
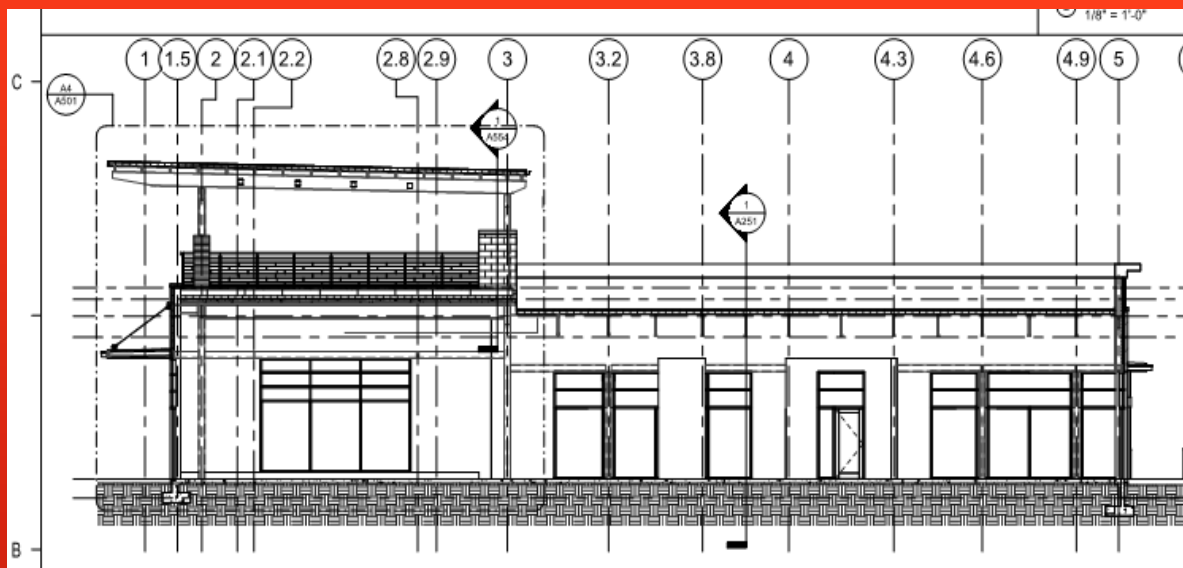
A: Breezeways do not have an occupancy as they are exit access and not really occupied space. Any rating they have comes from corridor requirements or from separation requirements. They are exterior walls as far as finishes and thermal envelope. Per an email from Carl Martin, mailboxes can be in the breezeway as they represent a low hazard risk.



Q: DOES A ROOF OVER A ROOFTOP TERRACE CREATE ANOTHER STORY? IF SO, ARE SPRINKLERS REQUIRED FOR THIS ASSEMBLY AREA?



BAR STOOLS = 16
FRIENDSHIP TABLE STOOLS = 16
DRINKRAIL = MULTIPLE
DINING SEATS = 28
DINING LOUNGE = 8
TOTAL SEATS = 68 + DRINKRAILS



Jeff,

If the roof covering is sufficient to protect the space from rain then it is expected to retain smoke. Such a roofed area would be considered fire area and building area based on the definition of "fire area" in Section 902.1 and "building area" in Section 502.1.

Carl Martin

Chief Building Code Consultant
Engineering Division
Office of State Fire Marshal
N. C. Department of Insurance
[325 N. Salisbury Street](#)
[Raleigh, NC 27603](#)
Tel: 919-647-0009
Fax: 919-715-0067

Office Hours: 7:00am to 4:00pm

A: Yes, if the roof will retain smoke it is considered fire area and building area. As such, this is an Assembly fire area above the level of exit discharge so it will require sprinklers. (903.2.1.2, #3) On this particular project, the designer is trying to come up with an alternate.

[F] 903.2.1.2 Group A-2. An *automatic sprinkler system* shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The *fire area* exceeds 5,000 square feet (464.5 m²);
2. The *fire area* has an *occupant load* of 300 or more, except 100 or more for *nightclubs*; or
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

Q: DOES FIRELITE QUALIFY AS A PROTECTED OPENING PER SECTION 705.8.2?

A: Yes, they would seem to meet this requirement based on their specs. But this would be an alternate since the code talks about shutters.

705.8.2 Protected openings. Where openings are required to be protected, *fire doors* and **fire shutters** shall comply with Section 715.4 and *fire window assemblies* shall comply with Section 715.5.

Exception: Opening protectives are not required where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and the exterior openings are protected by a water curtain using automatic sprinklers *approved* for that use.

SPECIFICATION SECTION 08 8810: FIRE RATED GLASS & FRAMING SuperLite™ II-XL 45 minute and SuperLite™ II-XL 45 minute with Starphire® Ultra-Clear Glass by PPG

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fire rated glazing
 - 1. SuperLite™ II-XL 45 safety rated, fire protective glazing with fire resistive qualities for interior and exterior applications.
 - 2. Applications of fire rated glazing includes:
 - a. Fire rated glazing as vision lites in door assemblies.
 - b. Fire rated glazing as sidelites, windows, transoms in fire rated frames.

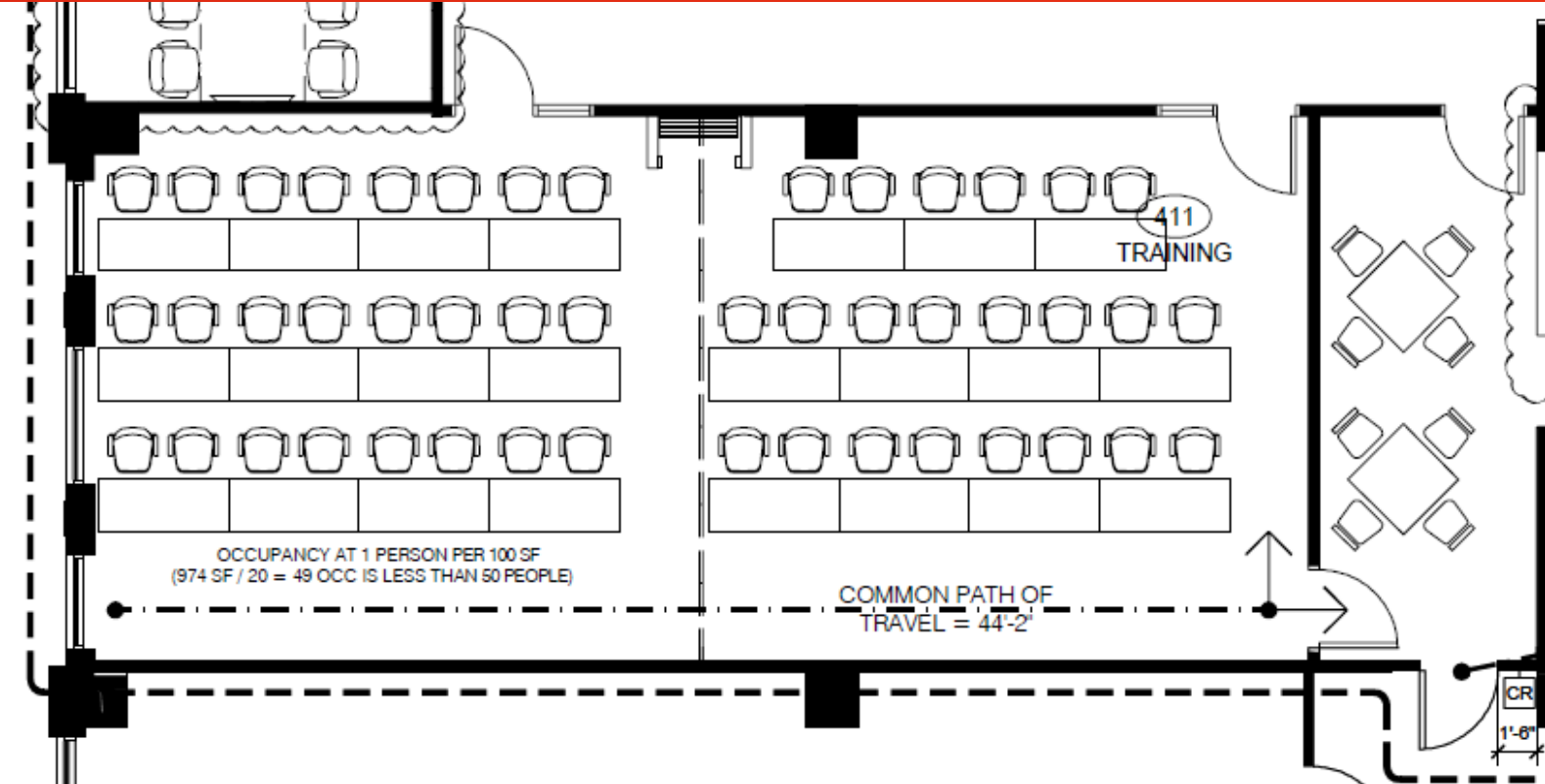


**Q: HOW DO WE
CALCULATE THE
OCCUPANT LOAD
IN A TRAINING
ROOM?**

A: If the tables are hardwired or otherwise fixed in place, count the seats or use 20 sf per person whichever is more. If the tables can be moved out of the room and stored somewhere else, count the room at 7 sf per person as this room can now be set up for a lecture or presentation with seats only.

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Educational Classroom area Shops and other vocational room areas	20 net 50 net



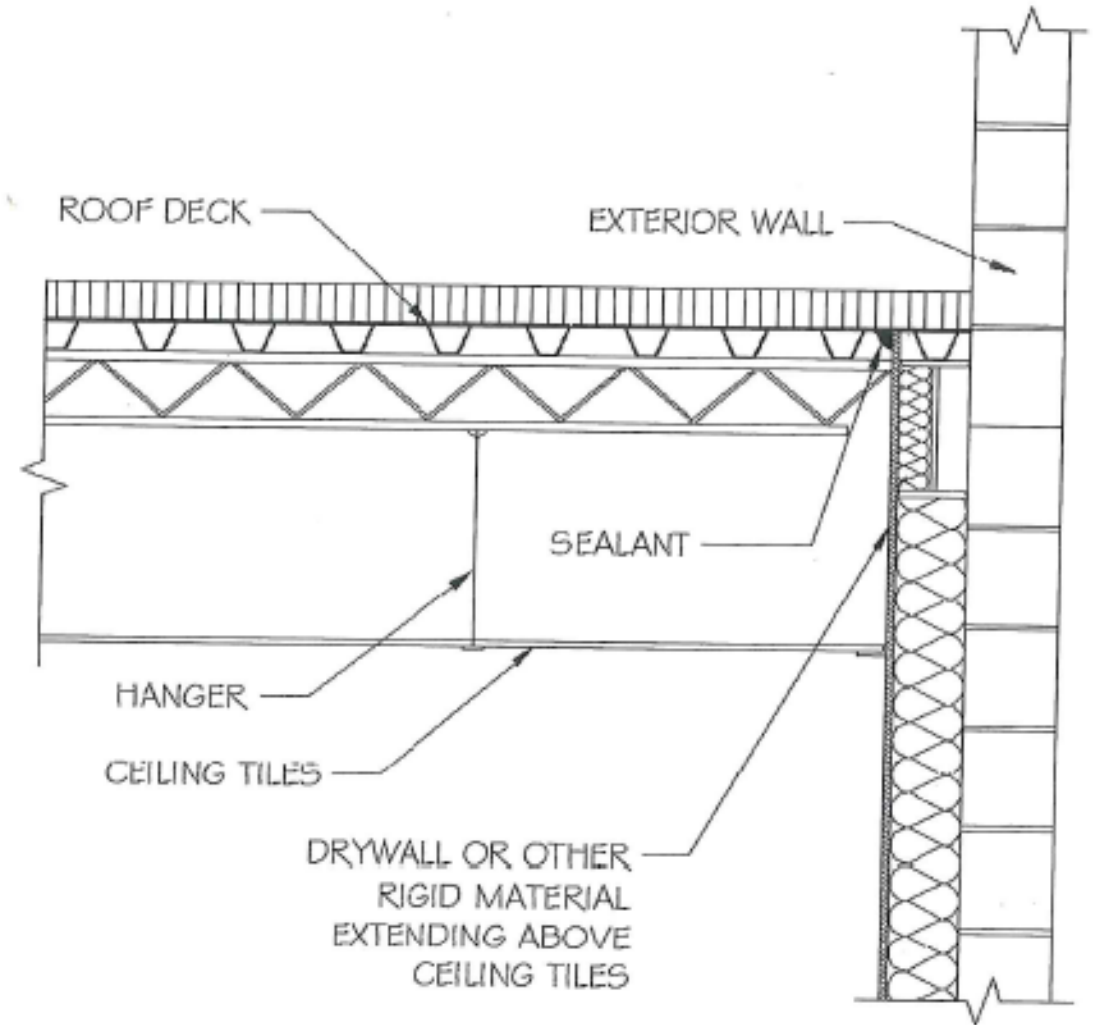
Q: DOES THE GYP HAVE TO BE COMPLETED ON AN INSULATED EXTERIOR WALL ABOVE THE DROP CEILING?

A: It depends. If it is part of the thermal envelope or if it makes up the air barrier, then yes.

You will need to only show that the thermal envelope has the correct insulation and air barrier. The CO in this case is not proof of that fact as the building should only have a Certificate of Completion. Apparently the CO was erroneously issued. You should be able to work the rest of this out with the local jurisdiction.

Carl Martin

502.4.3 Sealing of the building envelope. - 6. Other openings in the building envelope, continuous wall enclosure



SECTION VIEW OF SUSPENDED CEILING TILES AND EXTERIOR WALL

502.4.3 Sealing of the building envelope. Openings and penetrations in the building envelope shall be sealed with caulking materials or closed with gasketing systems compatible with the construction materials and location. Joints and seams of the air barrier system shall be sealed in the same manner or taped or covered with a moisture vapor-permeable wrapping material. Sealing materials spanning joints between construction materials shall allow for expansion and contraction of the construction materials. See construction details in Appendix 2.1.

The following connections shall be air sealed:

1. Joints around fenestration and door frames
2. Junctions between walls and foundations, between walls at building corners, between walls and structural floors or roofs, and between walls and roof or wall panels
3. Openings at penetrations of utility services through roofs, walls, and floors including but not limited to electrical, plumbing, mechanical, security, and communications
4. Site-built fenestration and doors
5. Joints, seams, and penetrations of the air barrier system
6. Other openings in the building envelope



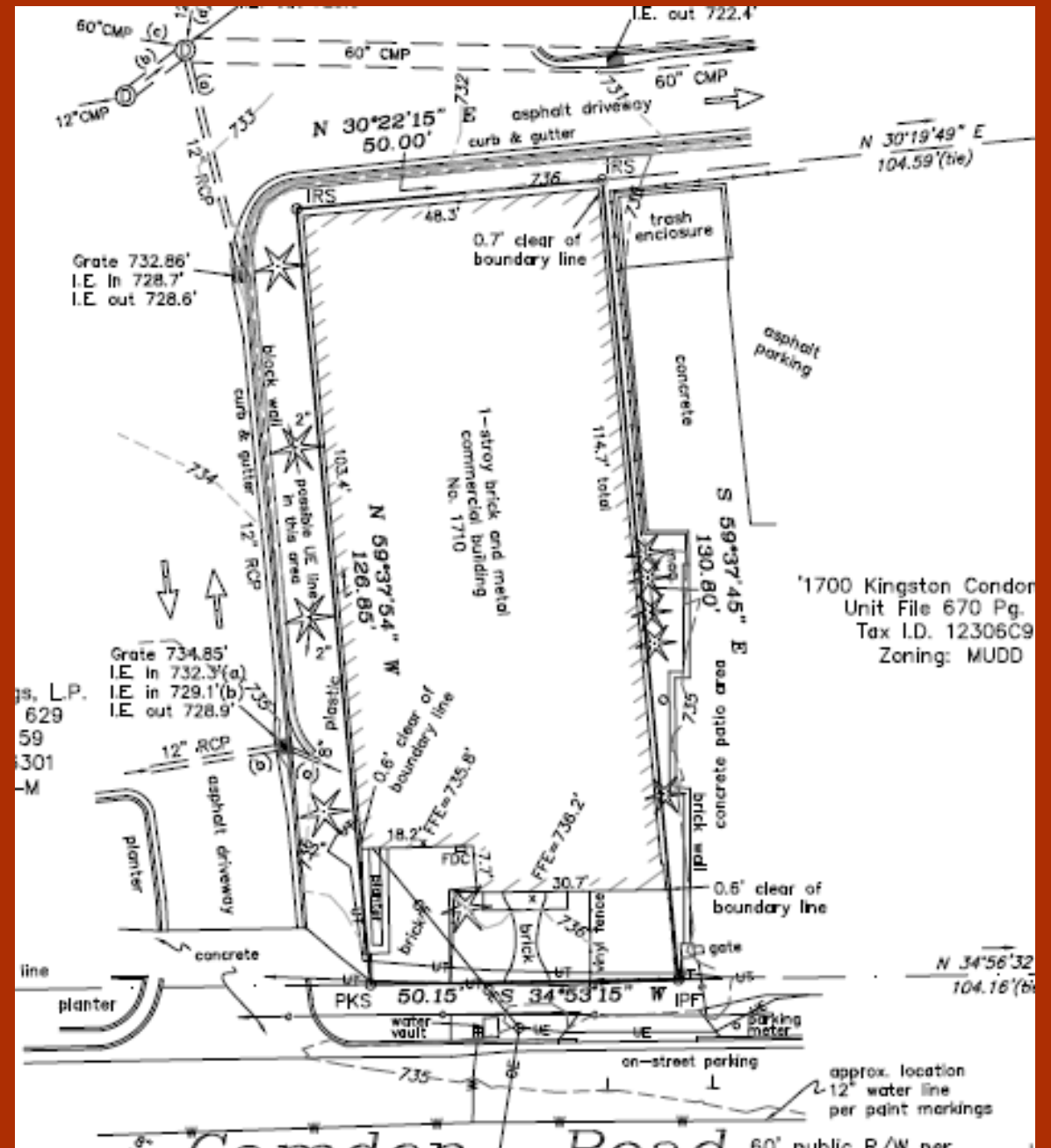
Q: WHERE CAN FIRE SEPARATION DISTANCE BE MEASURED FROM?

A: The definition from section 702 tells us where but if these are too close, an easement may be arranged between owners and the FSD measured to that easement. Note: the street, alley or public way must be publicly deeded property – not private.


FIRE SEPARATION DISTANCE. The distance measured from the building face to one of the following:

1. The closest interior lot line;
2. To the centerline of a street, an alley or public way; or
3. To an imaginary line between two buildings on the property.

The distance shall be measured at right angles from the face of the wall.



Q: CAN WE USE THE 2018 CODE NOW?

 **MECKLENBURG COUNTY Code Enforcement**

REQUEST FOR ALTERNATE METHOD / MATERIAL

Project Information:

Residential Single Family Project: Y N	Commercial Project: Y N
Code Enforcement Project No:	Permit No:
Project Name:	Owner:
Project Address:	Suite No:
Date Requested:	

Person Requesting the Alternate Method / Material:

Name:		
Requestor's Association with the Project:		
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		

Registered Design Professional in Responsible Charge (RDPRC):
(Architects or Engineers must be licensed in the State of North Carolina)

Name:		
Firm Name:		
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		

Code Section(s) for Which the Alternate is Being Requested:

Trade(s)	Code Year	Section Number & Title
B E M P		
B E M P		

Reason for Alternate Request: _____

Revised 2/15/2017

A: By state law, the 2018 code is allowed to be used as an alternate between now and its effective date (Jan 1, 2019) without any special “permission” from anyone, however, the full body of codes must be used as a whole on the project. In other words, the 2014 NEC, the 2018 Plumbing, 2018 Mechanical, etc. You couldn't just use the 2018 Building and not use the rest. Another thing to note is Neither our software nor our permit applications have been changed yet to show the 2018 Code as an option.

The other problem is we are not expecting printed copies of the 2018 until July 1, 2018. That being said, we don't have the complete text to review plans by or to perform our inspections.

So, to answer the question, yes, theoretically, but maybe not practically.

If I can approach the question another way – If there is a specific code section in the 2018 that you want to use, we may be able to pull that out and use it as an alternate under the current code.

Q: Can FRT be used below the podium in a 509 bldg.?

A: Not unless it meets one of the conditions in section 603. All of the construction beneath the slab on a section 509 special provision building must be Type IA construction. As a rule of thumb, wood cannot be used for structural purposes in non-combustible construction - code section 603.1, #1.3 being the obvious exception to the rule, of course.



Q: WHAT'S THE DEAL WITH STACKABLE WASHERS & DRYERS IN TYPE B UNITS?

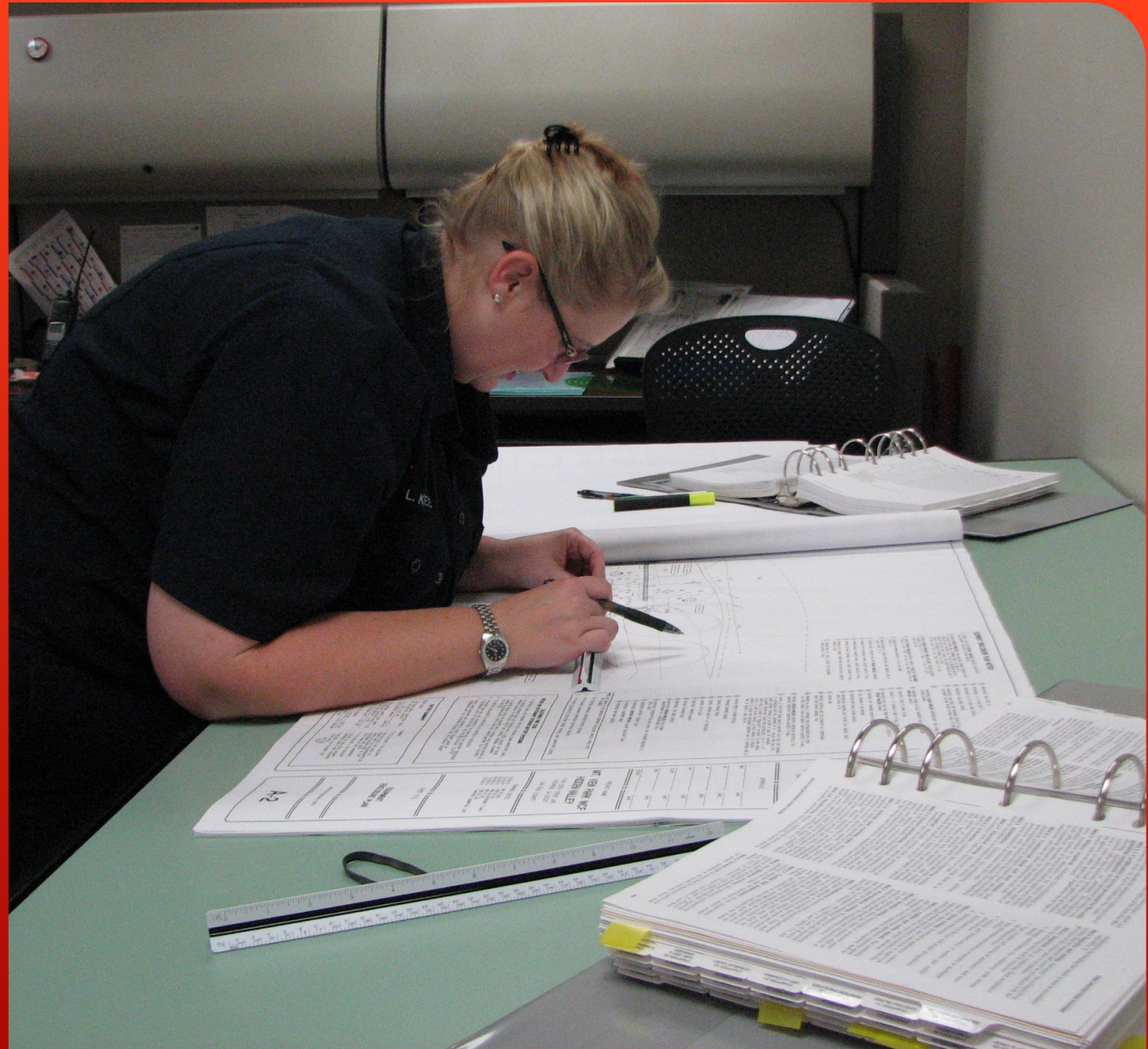


A: To my knowledge (and my past experience as a plans examiner) we have not been looking for accessible washers and dryers in Type B units. We have been looking for maneuverability / clear floor space only. Accessibility takes on many forms and as Laurel herself has often said, “not everyone who needs accessibility is in a wheelchair.” This is why we have vertical grab bars at urinals and extensions on stair handrails - some people just have trouble standing. With this in mind, Type B units are used not only to allow adaptation for those who are in wheelchairs, but also to allow people who aren't in a wheelchair and don't need full accessibility to have a unit that assists them as needed without requiring all the elements to be totally accessible. We would hope that a tenant would take the accessibility of the washer/dryer into consideration when renting an apartment and would ask the apartment management to make whatever arrangements were needed for him / her to be able to use the laundry equipment.

It should also be said that a washer and / or dryer are not required to be provided by the apartment manager. However, any equipment or appliances that are supplied and are in place at the final inspection would have to meet the appropriate code depending on the Type of unit.

Q: HOW CAN SOMETHING BE TURNED DOWN IN THE FIELD WHEN THE PLANS WERE APPROVED IN THE OFFICE?

A: The goal of plan review is to reduce the amount of non-code-compliant issues so construction proceeds in the correct way and so the inspector does not have to review the plans onsite after construction has begun. Of Course, plan review cannot see everything on a 2D plan and changes in the field can greatly affect the code-compliance of the structure.



QUESTIONS?



TRAINING TOPIC:

Sprinkler Systems –

Greg Riffe, P.E.

GAR Engineering

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